

U.S. Patent Application Serial No. 10/629,945  
Reply to Office Action of September 26, 2007

**REMARKS**

Applicant has read and considered the Office Action dated September 26, 2007 and the references cited therein. Reconsideration and allowance of the subject application is respectfully requested.

Claims 1, 3, 22 and 36 have been amended. Claim 2 has been cancelled without prejudice or disclaimer. Claims 1, 22 and 36 are independent. Claims 1 and 3-39 remain pending.

In the Final Official Action, claims 1-39 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Application Publication No. 2002/0036617 to Pryor ("Pryor"). Applicant respectfully submits that the rejection in view of the cited reference is not appropriate for the reasons set forth above.

Independent claim 1 recites a sports simulation system comprising a projectile tracking apparatus that comprises a display surface on which a visually apparent three-dimensional sports scene is presented. The projectile tracking apparatus captures images of a projectile tracking region disposed in front of the display surface to detect a launched sports projectile generally from its launch position, through the projectile tracking region and to its contact position with the display surface. At least one processing stage receives the image data and determines the three-dimensional positions, velocity and deceleration/acceleration of a detected launched sports projectile traveling through the projectile tracking region. The three-dimensional positions, velocity and deceleration/acceleration are used by the at least one processing stage to calculate a trajectory of the launched sports projectile into the visually apparent three-dimensional sports scene. The at least one processing stage uses the calculated trajectory to generate updated image data representing a simulation of the flight path of the launched sports projectile beginning at the display surface contact position and traveling into the visually apparent three-dimensional sports scene following the calculated trajectory so that the simulation represents a realistic continuance of the travel of the sports projectile beyond the display surface.

In contrast, Pryor discloses man machine interfaces and applications. In the embodiments of Figures 1A-1D, the interface comprises either a single camera or a pair of cameras to capture images in front of a display screen. Images captured by the camera(s) are processed to detect objects (either static or moving) in the captured images. The detected objects are then used to provide input to a computer. Although Pryor discloses many embodiments of a

U.S. Patent Application Serial No. 10/629,945  
Reply to Office Action of September 26, 2007

man machine interface, none of the man machine interfaces shows all of the features of the Applicant's invention as recited in independent claim 1.

Paragraph [0647] of Pryor appears to be the most relevant. In this paragraph, Pryor states that "an object may be physically thrown, kicked, slung, or otherwise directed at the image represented on the screen...and the thrown object tracked in space by the stereo camera of the invention and/or determined in its trajectory or other function by information relating to the impact on the screen." Contrary to the allegation in the Office Action, Pryor does not teach or suggest detecting a launched sports projectile generally from its launch position, through the projectile tracking region and to its contact position with the display surface. Also, Pryor does not teach or suggest processing two-dimensional projectile coordinates to determine the velocity and deceleration/acceleration of the projectile and using this information to calculate a trajectory of the launched projectile. Rather, Pryor simply makes a passing statement that a thrown object may be tracked. Pryor offers no detail or explanation as to how the thrown object is tracked, where during its travel is the thrown object tracked or what projectile travel information is determined from the images. In addition, Pryor also fails to teach or suggest using the calculated trajectory to generate updated image data representing a simulation of the flight path of the launched sports projectile beginning at the display surface contact position and traveling into the visually apparent three-dimensional sports scene following the calculated trajectory so that the simulation represents a realistic continuance of the travel of the sports projectile beyond the display surface. As Pryor fails to teach or suggest the Applicant's invention as defined by independent claim 1, Applicant respectfully submits that this claim and the claims dependent thereon, distinguish patentably over the cited reference and should be allowed.

Independent claims 22 and 36 now recite subject matter analogous to that recited in independent claim 1. Accordingly, Applicant respectfully submits that these claims and the claims dependent thereon, distinguish patentably over the cited reference for reasons similar to those discussed above and should be allowed.

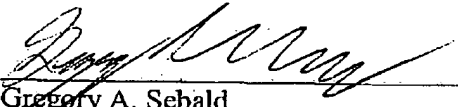
U.S. Patent Application Serial No. 10/629,945  
Reply to Office Action of September 26, 2007

In view of the above, it is believed the application is in order for allowance and action to that end is respectfully requested. If a telephone interview would be helpful in this matter, please contact Applicant's Representative at (612) 336-4728.

Respectfully submitted,

MERCHANT & GOULD P.C.  
P.O. Box 2903  
Minneapolis, Minnesota 55402-0903  
(612) 332-5300

Date: 3/26/08

  
\_\_\_\_\_  
Gregory A. Sebald  
Reg. No. 33,280  
GAS:PLSkaw